

Dissolution UV/VIS Online Systems

Semi-Automated Dissolution System USP Apparatus 1, 2, 5 and 6

The ERWEKA Dissolution Online System is the next step towards automatization of the dissolution analytical process. The dissolution tester is equipped with an autosampling station, which, in combination with a pump, transports the sample to a connected UV/VIS spectrophotometer. The analysis of the sample is then started automatically.

Our dissolution systems do not require extra handling by the user – the dissolution-, sampling-, analysis- and

storing-process is completely automated, controlled and configured by our Disso.net software. In addition, the Disso.net software handles storing of results and can also be integrated into existing LIMS-systems.

Configured as **On-/Offlinesystem**, an automatic sample collector is added to the array of devices. The sample collector gathers the samples after the UV measurement either as reference sample or for later HPLC analysis.



Component Highlights

System Highlights DT 720

- Full support of USP methods 1, 2, 5, 6
- 100% USP / EP compliant system
- Automated sampling with automatic USP height adjustment and optional measuring of temperature in each vessel
- Automated tablet drop available
- Pre-heating function
- Complete integration of different types of spectrophotometer
- High analytical flexibility due to additional integration of sample collector (e.g. for later HPLC measurement)
- Measuring of complete spectra
- Media replacement

Pumps

- IPC peristaltic pump – easy to handle, inert tubing material, 8 channel and 16 channels possible
- PVP piston pump – for double filtration down to 0.22 µm for flat membrane filters, high precision, inert ceramic material pump heads, almost maintenance free

ERWEKA SPM UV/VIS spectrophotometer

- True double-beam operation
- High throughput, low stray-light optics
- Pre-aligned deuterium and tungsten-halogen lamps
- Wide range of flow-through cuvettes with different path-lengths available

- High stability, high accuracy
- Fulfills all pharmacopoeia and regulatory performance tests

Disso.net software Highlights

- Controls different types of spectrophotometer without the need of additional vendor software required
- Calculation of dissolution profiles via UV-measurement
- Easy recalculation of results
- 21 CFR Part 11 compliant
- MS SQL database, local or network installation
- Support for computer based ERWEKA dissolution systems, capable of testing USP methods 1, 2, 5 and 6
- Multiple System Suitability Tests for highest reliability
- Easy approach from top to bottom
- Semi-annual check of the photometer according EP

Dissolution UV/VIS Online System

Standard Online System with UV/VIS Spectrophotometer



The online dissolution system consists of a DT 72x, an IPC 8 and connects UV/VIS spectrophotometer for online determination of dissolution rates. The system is managed by our Disso.net PC software.

Dissolution Tester	Automatic Sampling Station	Peristaltic Pump	UV/VIS Spectrophotometer	PC + Disso.net Software
DT 726 / 727 / 728	ASS-8	IPC 8	ERWEKA SPM (Perkin Elmer Lambda 25 OEM) or Shimadzu 1800 or Agilent 8454	✓

DT 141x Series Online System with UV/VIS Spectrophotometer



The UV/VIS Online system can also be configured with a DT 1412. It offers the possibility for one test with 12 tablets or two tests with 6 tablets.

Dissolution Tester	Automatic Sampling Station	Peristaltic Pump	UV/VIS Spectrophotometer	PC + Disso.net Software
DT 141x	ASS-14	IPC 16	Analytic Jena Specord 210 Plus + 2 x Cuvette changer	✓

Dissolution UV/VIS On-/Offline System

On-/Offline System with DT 72x Series

An On-/Offline system provides a another step of automation. It is controlled via the fully validated ERWEKA Disso.NET software and offers automated dissolution testing, integrated UV/VIS analysis and sample collection into glass tubes or HPLC vials for later HPLC analysis.



Dissolution Tester	Automatic Sampling Station	Peristaltic Pump	UV/VIS Spectrophotometer	Sample Collector	PC + Disso.net Software
DT 726 / 727 / 728	ASS-8	IPC 8	ERWEKA SPM (Perkin Elmer Lambda 25 OEM) or Shimadzu 1800 or Agilent 8454	FRL 624	✓

On-/Offline System with DT 1412

The DT 1412 with 12 test stations can also be configured as an UV/VIS On-/Offline system. It offers the possibility for one test with 12 tablets or two tests with 6 tablets.



Dissolution Tester	Automatic Sampling Station	Peristaltic Pump	UV/VIS Spectrophotometer	Sample Collector	PC + Disso.net Software
DT 1412	ASS-14	IPC 16	Analytic Jena Specord 210 Plus + 2 x cuvette changer	FRL 624-2	✓

Technical Specifications

Sample Collector FRL 624 / 724 / 824

Auto sample collector with 6 to 8 channels for sampling up to 26 intervals; 1 driven dosing arm with 8 stainless steel dosing needles, RS 232 interface for external control by Disso.NET PC software.

Sampling tubes and HPLC vials

26x 8 glass tubes of 12 ml capacity
18x 8 glass tubes of 25 ml capacity
26x 8 HPLC vials of 1.5 ml capacity
26x 8 HPLC vials of 4.0 ml capacity
Handling of septa-sealed HPLC vials and glass tubes

System Control with Disso.NET

The Software handles standard dissolution jobs, handles tasks and provides control over each single function and connected device.

- MS SQL database local or network installation
- Multiple System Suitability Tests for highest reliability
- Full audit trail according to 21 CFR Part 11 including date, time stamp, user ID
- Integrated workflow for approval and review of reports before publishing (paperless lab)
- pH-change support according USP-Method A and B
- Easy XML, PDF, Excel ex-/import for LIMS communication
- Semi-annual check of the photometer according EP
- Daily check of the photometer